

In the Claims

1. (Currently Amended) A method for coordinating operation of packet-based audio telephony devices comprising:

discovering a plurality of packet-based audio telephony devices within an acoustic space;

initializing the packet-based audio telephony devices to participate in a communication session for the exchange of packet-based audio communications between participants of the communication session;

generating an output stream comprising a plurality of packets each including digitally encoded audio;

calculating a time for play out of a selected one of the packets;

providing the output stream to the packet-based audio telephony devices; and

commanding each of the packet-based audio telephony devices to output the audio from the selected packet at the calculated time.

2. (Currently Amended) The method of Claim 1, wherein commanding the packet-based audio telephony devices to output the audio from the selected packet at the calculated time comprises embedding instructions within a field of the selected packet, the instructions specifying the calculated time.

3. (Currently Amended) The method of Claim 1, wherein commanding the packet-based audio telephony devices to output the audio from the selected packet at the calculated time comprises:

generating a command packet separate from the output stream, the command packet identifying a sequence number of the selected packet and the calculated time; and

communicating the command packet to the packet-based audio telephony devices.

4. (Currently Amended) The method of Claim 1, wherein initializing the packet-based audio telephony devices to participate comprises commanding each of the packet-based audio telephony devices to synchronize clocks with a central network time server.

5. (Currently Amended) The method of Claim 1, further comprising commanding each of the packet-based audio telephony devices to output audio at a particular volume level.

6. (Currently Amended) The method of Claim 1, further comprising:
receiving a volume change indication from one of the packet-based audio telephony devices, the volume change indication specifying a volume level; and
communicating a command to all other ones of the packet-based audio telephony devices, the command specifying the volume level.

7. (Currently Amended) The method of Claim 1, further comprising:
receiving input streams from each of the packet-based audio telephony devices, each of the input streams comprising a plurality of packets each including digitally encoded audio;
selecting one of the input streams;
generating a second output stream using the selected input stream; and
communicating the second output stream to participants in the communication session outside of the acoustic space.

8. (Currently Amended) The method of Claim 1, further comprising:
determining an algorithmic delay for each of the packet-based audio telephony devices, the algorithmic delay indicating a time delay from receiving a packet to providing play out of audio from the received packet; and
calculating the time for play out of the selected one of the packets based on the algorithmic delays from the packet-based audio telephony devices.

9. (Currently Amended) The method of Claim 1, further comprising removing one of the packet-based audio telephony devices from the communication session before completion of the communication session based upon measured network conditions.

10. (Currently Amended) An apparatus for coordinating operation of packet-based audio telephony devices comprising:

an interface operable to communicate with a plurality of packet-based audio telephony devices within an acoustic space;

a media module operable to generate an output stream comprising a plurality of packets each including digitally encoded audio; and

a controller operable to initialize the packet-based audio telephony devices to participate in a communication session for the exchange of packet-based audio communications between participants of the communication session, to calculate a time for play out of a selected one of the packets, to provide the output stream to the packet-based audio telephony devices, and to command each of the packet-based audio telephony devices to output the audio from the selected packet at the calculated time.

11. (Currently Amended) The apparatus of Claim 10, wherein the controller is further operable to command the packet-based audio telephony devices to output the audio from the selected packet at the calculated time by embedding instructions within a field of the selected packet, the instructions specifying the calculated time.

12. (Currently Amended) The apparatus of Claim 10, wherein the controller is further operable to command the packet-based audio telephony devices to output the audio from the selected packet at the calculated time by:

generating a command packet separate from the output stream, the command packet identifying a sequence number of the selected packet and the calculated time; and

communicating the command packet to the packet-based audio telephony devices.

13. (Currently Amended) The apparatus of Claim 10, where the controller is further operable to initialize the packet-based audio telephony devices to participate by commanding each of the packet-based audio telephony devices to synchronize clocks with a central network time server.

14. (Currently Amended) The apparatus of Claim 10, wherein the controller is further operable to command each of the packet-based audio telephony devices to output audio at a particular volume level.

15. (Currently Amended) The apparatus of Claim 10, wherein the controller is further operable to:

receive a volume change indication from one of the packet-based audio telephony devices, the volume change indication specifying a volume level; and

communicate a command to all other ones of the packet-based audio telephony devices, the command specifying the volume level.

16. (Currently Amended) The apparatus of Claim 10, wherein:

the interface is further operable to receive input streams from each of the packet-based audio telephony devices, each of the input streams comprising a plurality of packets each including digitally encoded audio;

the media module is further operable to select one of the input streams, to generate a second output stream using the selected input stream, and to communicate the second output stream to participants in the communication session outside of the acoustic space using the interface.

17. (Currently Amended) The apparatus of Claim 10, wherein the controller is further operable to:

determine an algorithmic delay for each of the packet-based audio telephony devices, the algorithmic delay indicating a time delay from receiving a packet to providing play out of audio from the received packet; and

calculate the time for play out of the selected one of the packets based on the algorithmic delays from the packet-based audio telephony devices.

18. (Currently Amended) The apparatus of Claim 10, wherein the controller is further operable to remove one of the packet-based audio telephony devices from the communication session before completion of the communication session based upon measured network conditions.

19. (Currently Amended) Computer readable media encoding logic for coordinating operation of packet-based audio telephony devices, the logic encoded in media and operable when executed by an ASM device to:

discover a plurality of packet-based audio telephony devices within an acoustic space;

initialize the packet-based audio telephony devices to participate in a communication session for the exchange of packet-based audio communications between participants of the communication session;

generate an output stream comprising a plurality of packets each including digitally encoded audio;

calculate a time for play out of a selected one of the packets;

provide the output stream to the packet-based audio telephony devices; and

command each of the packet-based audio telephony devices to output the audio from the selected packet at the calculated time.

20. (Currently Amended) The computer readable media logic of Claim 19, further operable to command the packet-based audio telephony devices to output the audio from the selected packet at the calculated time by embedding instructions within a field of the selected packet, the instructions specifying the calculated time.

21. (Currently Amended) The computer readable media logic of Claim 19, further operable to command the packet-based audio telephony devices to output the audio from the selected packet at the calculated time by:

generating a command packet separate from the output stream, the command packet identifying a sequence number of the selected packet and the calculated time; and

communicating the command packet to the packet-based audio telephony devices.

22. (Currently Amended) The computer readable media logic of Claim 19, wherein initializing the packet-based audio telephony devices to participate comprises commanding each of the packet-based audio telephony devices to synchronize clocks with a central network time server.

23. (Currently Amended) The computer readable media logic of Claim 19, further operable to command each of the packet-based audio telephony devices to output audio at a particular volume level.

24. (Currently Amended) The computer readable media logic of Claim 19, further operable to perform the steps of:

receiving a volume change indication from one of the packet-based audio telephony devices, the volume change indication specifying a volume level; and

communicating a command to all other ones of the packet-based audio telephony devices, the command specifying the volume level.

25. (Currently Amended) The computer readable media logic of Claim 19, further operable to perform the steps of:

receiving input streams from each of the packet-based audio telephony devices, each of the input streams comprising a plurality of packets each including digitally encoded audio;

selecting one of the input streams;

generating a second output stream using the selected input stream; and

communicating the second output stream to participants in the communication session outside of the acoustic space.

26. (Currently Amended) The computer readable media logic of Claim 19, further comprising:

determining an algorithmic delay for each of the packet-based audio telephony devices, the algorithmic delay indicating a time delay from receiving a packet to providing play out of audio from the received packet; and

calculating the time for play out of the selected one of the packets based on the algorithmic delays from the packet-based audio telephony devices.

27. (Currently Amended) The computer readable media logic of Claim 19, further operable to remove one of the packet-based audio telephony devices from the communication session before completion of the communication session based upon measured network conditions.

28. (Currently Amended) An apparatus for coordinating operation of packet-based audio telephony devices comprising:

means for discovering a plurality of packet-based audio telephony devices within an acoustic space;

means for initializing the packet-based audio telephony devices to participate in a communication session for the exchange of packet-based audio communications between participants of the communication session;

means for generating an output stream comprising a plurality of packets each including digitally encoded audio;

means for calculating a time for play out of a selected one of the packets;

means for providing the output stream to the packet-based audio telephony devices; and

means for commanding each of the packet-based audio telephony devices to output the audio from the selected packet at the calculated time.

29. (Original) A method for coordinating operation of packet-based audio devices comprising:

discovering a plurality of packet-based audio devices within an acoustic space;

commanding each of the packet-based audio devices to synchronize clocks with a central network time server;

generating an output stream comprising a plurality of packets each including digitally encoded audio;

determining an algorithmic delay for each of the packet-based audio devices, the algorithmic delay indicating a time delay from receiving a packet to providing play out of audio from the received packet;

calculating a time for play out of a selected one of the packets based on the algorithmic delays from the packet-based audio devices;

providing the output stream to the packet-based audio devices;

commanding each of the packet-based audio devices to output the audio from the selected packet at the calculated time;

receiving input streams from each of the packet-based audio devices, each of the input streams comprising a plurality of packets each including digitally encoded audio;

selecting one of the input streams;

generating a second output stream using the selected input stream; and

communicating the second output stream to participants in the communication session outside of the acoustic space.